REMARKS

Thank you for your Office Action of June 9, 2009. The Examiner has rejected Claims 1 to 20 as being unpatentable over Collard in view of Schmidt and Gribnau. According to the translation of Collard, as shown in Figure 2 thereof, it is stated that the generators 8 can be fitted so that they may be tilted with respect to their mounts 11 that are fixed to platform 9 to allow their pinions 6 or rollers to be engaged to toothed crown 5 so that they do not operate as shown by the dashed lines of Figure 2. The translation further states that this interesting arrangement within an appropriate means of control allows some or all of the generators to be used as needed. There is no mention or description of a controller or any structure shown in the drawings that could be a controller. From Figure 2, it can be seen that the entire generator and pinion are tilted away from the crown wheel 5. There is no indication in the description or drawings of Collard that the generators 8 and pinions 6 are tilted away from or tilted into contact with the crown wheel 5 while the crown wheel 5 is rotating. From the design shown in Figure 2, it appears that the pinions or the peripheral edges of the teeth of the crown wheel 5 would break or become damaged if an attempt was made to move a pinion and generator out of contact position from the contact position or vice versa during rotation of the crown wheel 5. Contrary to the Examiner's statement on page 3 of the Office Action, the Collard patent does not mention tires, but states only that the crown wheel 5 may have teeth on both sides, or even surfaces that are grooved or treated in some other way to drive by friction, rollers that are integral to the generator shafts.

The Examiner states that Schmidt teaches a wind turbine being controlled by controller 144 that monitors the wind using sensors 146 to control the yaw of the turbine, position of the blades and number of wheels in contact with the ring and the turbine is a variable speed turbine. In Column 6, beginning at line 44, Schmidt provides that a sensor 146 generates a signal on a lead 148 indicative of the wind direction. Schmidt states that controller 150, located in control unit 144, in turn, generates a signal on a lead 152 which is sufficient to cause yaw motor 130 to drive carriage 16 and thereby turbine wheel 14 about axis 128 so that it is maintained in the position generally normal to the wind. There is no mention in Schmidt of controlling the number of wheels in contact with the ring. In Figures 1 to 3, Schmidt provides that the wind turbine 10 includes a circular turbine wheel shown generally at 14, a carriage 16 for supporting the wheel

and a cantilevering assembly 18 for cantilevering carriage 16 and an anchoring assembly 20. As set out in Column 6, beginning at line 15, Schmidt states that substantially the entire weight of the turbine wheel 14 is supported on the wheels 84, 86, 88, 90, 96, 98, 110 and therefore the carriage 16. Column 4 of Schmidt, beginning at line 28 provides that it is desirable to mount the power take-off wheels 84, 86, 88, 90, 96, 98, 110 with brakes such as electric disk brakes so that the turbine wheel can be stopped if it rotates at an excessive speed. There is no statement in Schmidt that the brakes are connected to a controller. The wheels have a spring shock adjuster 106 that allows the power take-off wheels to move radially relative to rim 26 so that slight vibrations and movements in the rim may be absorbed without unduly stressing the power take-off wheels or carriage 16. There is no indication anywhere in Schmidt that the wheels 84, 86, 88, 90, 96, 98 and 110 move out of contact with the ring. Since substantially the entire weight of the turbine wheel 14 is supported by the foregoing wheels can not possibly be moved out of contact with the turbine wheel 14. The take-off wheels 84, 86, 88, 90, 96, 98, 110 also cannot move out of contact with the turbine wheel 14 or they could not be used for braking the turbine wheel 14. In Column 6, beginning at line 25, Schmidt states that the power and control unit 144 is used to provide power generated by the generators contained on turbine 10 to an external power grid. The control units further control operation of the stepping motors for furling and unfurling sails as well as controlling the operation of the yaw motor.

The Gribnau patent describes a wind turbine that uses a rotor and stator as described therein. From Figure 4a, the very close tolerances that the rotor 6 and stator 5 mounted in the cradle 7 must meet, or surpass can clearly be seen. The Examiner states that the stators held in the U-shaped holder 7 are equivalents to the rotator and generator of Collard and therefore it would have been obvious at the time that the present invention was made to one of ordinary skill in the art to further modify the ring of Collard, with the teaching of Gribnau, by positioning the ring on the shaft separate from the blades and having the ring being smaller in diameter than the circumference of the blades as an engineering expedient. It is respectfully submitted that the rotor and stator described in Gribnau are not equivalents to the rotator and generator described in the present application. The rotor and stator are much more expensive and much more sensitive to operater than the rotators and generators of the present invention. Further, the rotor and stator design described in Gribnau is much more likely to fail than the rotator and generator design of

the present application. Wind turbines must be efficient to compete with other sources of energy. Not only is the stator very expensive to manufacture and maintain, the stator also requires electricity to operate. In cold climates and, with the erratic weather systems that occur today, severe weather conditions including cold weather conditions can occur over a very broad area. The rotor and stator described in Gribnau will not operate properly in snowy or freezing rain conditions. One of the disadvantages of previous wind turbines is that the turbines themselves require a large amount of electricity simply to operate. The rotor stator design of Gribnau adds to the electrical consumption disadvantages of wind turbines. Wind turbines of the present invention because of their design, do not require significant amounts of electricity to operate compared to Gribnau, Schmidt and Collard. For the above reasons, the present invention is not rendered obvious by the prior art cited.

With respect to Claim 12, the plate provides more protection from adverse weather conditions.

Concerning the method Claims 13 to 15, for the same reasons given with respect to the apparatus claims, it is respectfully submitted that the combination of Collard, Schmidt, and Gribnau do not render the method claims unpatentable on the basis of obviousness. Applicant agrees that Claims 1/5, 1/2/3/5 and 1/4/5 would not be patentable by themselves, but these Claims are patentable as being dependent on one or more patentable base claims.

It is therefore respectfully submitted that the rejection of Claims 1 to 20 as being unpatentable on the basis of obviousness over Collard, Schmidt and Gribnau, should be withdrawn.

It is respectfully submitted that the application is in condition for allowance.

Applicant will pay a three month extension of time fee upon filing this response.

Respectfully submitted,

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